

## PART ONE

# ASSEMBLY AND SERVICE OPERATIONS

### CHAPTER 1

## INTRODUCTION

#### 1-1. Scope

a. The purpose of this manual is to provide information needed by personnel responsible for the organizational maintenance of NIKE HERCULES Air Defense Guided Missiles MIM-14A (missiles 10206 through 11935) and MIM-14B (missiles 13001 and subsequent).

b. Information for assembly, testing, corrective maintenance, winterization, and deactivation performed by assembly and service personnel is contained in this manual.

c. (Deleted)

#### 1-2. Organizational Maintenance Allocation

In general, the maintenance responsibilities of the organizational maintenance technician will apply as reflected in TM 9-1410-250-25P/1/1 and TM 9-1410-250-25P/2/1. In cases where the nature of repair, modification, or adjustment is beyond the scope of the maintenance technician, the DS maintenance unit should be informed so that personnel with suitable tools and equipment may be provided or other proper instructions issued.

#### 1-3. Forms, Records, and Reports

Refer to TM 38-750 for instructions on the use and completion of all forms required for operating and maintaining this equipment.

#### 1-4. Report of Equipment Publication Improvements

Report of errors, omissions, and recommendations for improving this publication by

the individual user is authorized and encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to: Commanding General, U.S. Army Missile Command, ATTN: AMSMI-SMPT(NMP), Redstone Arsenal, Alabama 35809.

#### 1-5. References

Refer to TM 9-1400-250-10 or TM 9-1400-250-10/2 for a listing of publications pertaining to the NIKE system.

#### 1-6. Modification Work Orders (MWO's)

This manual is technically correct for NIKE HERCULES air defense guided missiles MIM-14A and MIM-14B, provided all pertinent outstanding MWO's have been incorporated. Refer to TB 9-1425-250-15/1 for the configuration history of the missile and a listing of pertinent MWO's.

#### 1-7. (Deleted)

#### 1-8. Differences Among Models

Basic differences among models of the missile body are found in the forward body section, the equipment section, and the actuator section. TM 9-1410-250-12/2, lists the components of the mushroom missile guidance set and indicates the interchangeability of the different models of the components.

## 1-9. Forward Body Section

a. In missiles 11188 through 11935 and 13001 and subsequent, there is a change in the configuration of the forward body section, the break being made at station 40.000, instead of station 18.000.

b. Missiles 10206 through 11935 are equipped with a missile guidance set (stove-pipe), and missiles 13001 and subsequent are equipped with a missile guidance set (mushroom). Many minor circuit differences exist between missile guidance sets (mushroom) with serial numbers prior to GS-111 and missile guidance sets with serial numbers GS-111 and subsequent. These circuit differences cause the voltages and waveforms observed at various test points within the missile guidance sets to differ between the two models. Since these differences are minor, only missile guidance sets with serial numbers GS-111 and subsequent are given detailed coverage in this manual.

## 1-10. Equipment Section

In missiles 13684 and subsequent, the missile battery is squib-activated. The use of a squib-activated battery results in differences in the internal wiring of the missile distribution box and changes of the battery cable assemblies and the support structure. There is also a change in the configuration of the accessory power supply (APS). Minor differences in connectors and placarding exist between APS 9032190 and APS 9030900. On missiles 14965 and subsequent, the APS is replaced by the hydraulic pumping unit (HPU). The HPU and the APS are interchangeable at this effectivity.

## 1-11. Actuator Section

In missiles 10206 through 10603, there is only one overlapping joining pad on each actuator section access door assembly. In missiles 10604 through 11935 and 13001 and subsequent, there are two overlapping joining pads on each assembly.